Abstract of the Disclosure

The invention relates to a rotary machine comprising a rotor (6) bearing a packing (9) in the form of a ring which is at least partially made from a flexible, fluid-permeable material. The inventive machine also comprises variable-speed drive means for rotating the rotor (6) and means which enable the aforementioned packing (9) to be deformed in response to a variation in the rotational speed of the rotor (6). As a result, the machine can produce an air flow, extract material contained in said flow and perform a self-cleaning cycle.